AUSTRALIA

Patents Act 1990

IN THE MATTER OF Australian Patent Application No. 2004249786

-and-

IN THE MATTER OF Opposition thereto by Dura-Post (Aust.) Pty Ltd

STATUTORY DECLARATION

I, Laurence Bede Dowling of 28 Wrightson Avenue, Newcastle, New South Wales 2300, Australia, make the following declaration under the Statutory Declarations Act 1959:

1. I am a professionally qualified civil engineer and director of the civil engineering consulting firm LB Dowling & Associates Pty Ltd. I particularly specialise in road technology and road safety, including roadside posts.

2. I have previously sworn affidavits on 15 March 2007 ("my First Affidavit"), 21 May 2007 ("my Second Affidavit"), 4 June 2007 ("my Third Affidavit") and 22nd October 2007 ("my Fourth Affidavit") (hereafter, where appropriate, referred to jointly as "my Affidavits") in relation to Federal Court of Australia proceeding no. N378 of 2006 (the "Federal Court Proceedings"). I understand that the Federal Court Proceedings relate to a claim by Delnorth Pty Ltd ("Delnorth") that each of Australian innovation patent numbers 2005100978 ("the First Innovation Patent"), 2006100297 ("the Second Innovation Patent") and 2006100696 ("the Third Innovation Part") (hereafter, where appropriate, referred to jointly as "the Innovation Patents") are infringed by Dura-Post (Aust.) Pty Ltd ("Dura-Post") through commercial exploitation of a roadside guide post ("the Flexi-Steel Post"). I understand that Dura-Post has also made a cross-claim for invalidity of the Innovation Patents.

3. My professional background and qualifications are set out in paragraphs 1 to 12 of my First Affidavit.

4. I have been advised that the present proceedings relate to an opposition to the grant of a patent on Australian Patent Application No. 2004249786 ("the Delnorth Application") by

Dura-Post. I have been provided, and have read, a copy of the Delnorth Application which is now exhibited hereto as Exhibit LBD-A. I have been advised by Spruson & Ferguson, the patent attorneys for Delnorth, that the Delnorth Application is related to the Innovation Patents.

5. Before finalising this Statutory Declaration, I have re-read and understood the *Revised Guidelines for Expert Witnesses in the Federal Court of Australia* issued on 6 June 2007, a copy of which is exhibited to my Fourth Affidavit as Exhibit LBD-13. I make this Statutory Declaration in accordance with these guidelines.

6. I have been asked by Spruson & Ferguson to make this Statutory Declaration in light of the knowledge and experience that I had prior to 23 June 2003. I have endeavoured to do so. Unless otherwise indicated, the opinions and views I express in this Statutory Declaration are expressed in light of the knowledge and experience that I had prior to that date in relation to roadside posts and deal with the position as it stood prior to that date. On the basis of my experience as outlined in my First Affidavit, I consider that the matters I deal with in this Statutory Declaration are within my area of expertise.

7. For the purposes of this Statutory Declaration, Spruson & Ferguson has asked me to comment on the following:
   (a) the Delnorth Application, particularly comparing it to the Innovation Patents; and
   (b) my first impressions of the roadside posts described in the Innovation Patents (and the Delnorth Application).

8. I have read the Delnorth Application and note that it is substantially identical to each of the Innovation Patents, apart from the claims set out on pages 7 to 9 of the Delnorth Application and the section entitled "Summary of the Invention" on pages 2 and 3 of the Delnorth Application. I also note that claim 1 of the Delnorth Application generally defines the same features as claim 1 of the Second Innovation Patent, and the features of various other claims of the Delnorth Application correspond to various features set out in claims of the Innovation Patents.

9. My comments set out in my Affidavits equally apply to the Delnorth Application, and I refer to and reconfirm those comments for the purpose of the present proceedings.

10. As at 23 June 2003, I was not aware of any roadside post formed of sheet spring steel. The first time that I became aware of any roadside post formed of sheet spring steel was during preparation of my First Affidavit, when I was provided with copies of the Innovation Patents and had access to, and inspected closely, the Flexi-Steel Post and a roadside post marked with the label "STEEL-FLEX" ("the Delnorth Post") that I had been advised is manufactured by Delnorth. Photographs of the Flexi-Steel Post and the Delnorth Post form Annexures "C" and "D" of my First Affidavit.

11. As discussed in paragraph 23 of my First Affidavit, my first impression on reading the First Innovation Patent was that it provided a significant advance over roadside posts that were previously in use. When I first inspected the Flexi-Steel Post and Delnorth Post, I was surprised, and impressed, with the bending characteristics of both the Flexi-Steel Post and the Delnorth Post (hereinafter referred to jointly as "the Spring Steel Posts"). I was particularly impressed with the manner in which I was able to readily bend the Spring Steel Posts about a transverse axis through large angles, with the Spring Steel Posts reverting back to their original straight configurations immediately upon release of the bending force that I was applying and without any visible permanent deformation. I was surprised that the Spring Steel Posts were able to be bent through such large angles without any tendency for the Spring Steel Posts to kink or exhibit any other form of plastic deformation. I was able to immediately see that the Spring Steel Posts represented what I considered to be a "quantum leap" in the development of roadside posts that the industry had been seeking for many years, and represented the most notable advance that I was aware of in many years.

12. As generally discussed in my Affidavits, various forms of roadside posts were available in Australia before June 2003, including solid timber posts, rubber based posts, rigid steel posts and flexible plastic posts. Each of these various types of posts suffered from various disadvantages, as generally discussed in my Affidavits, and none met the long-standing desire within the industry for a roadside post that:
    (a) is simple and relatively inexpensive to manufacture;
    (b) is relatively simple to install;
    (c) has a low requirement for maintenance and replacement;
    (d) has a long service life;
    (e) performs consistently throughout its service life;

(f) is capable of withstanding multiple vehicle impacts without any noticeable damage to the post or impacting vehicles;

(g) does not suffer degradation of performance in extreme hot or cold climates; and

(h) is resistant to damage by fire.

13. The roadside post described in the Innovation Patents and the Delnorth Application, is the first post that I am aware of that satisfies each of these needs. The many advantages of the roadside post described in the Innovation Patents (and the Delnorth Application) are discussed in detail in my Affidavits.

14. When I first read the Innovation Patents, and inspected the Spring Steel Posts, realising the significant improvements that these posts represented, and appreciating the simplicity of the solution, I immediately asked myself why I did not earlier arrive at this solution which, with the benefit of hindsight, is elegant but actually quite simple. As discussed in paragraph 13 of my Second Affidavit, during 1997 I supervised and conducted a questionnaire survey of the State Road Authorities in Australia and a small number of suppliers concerning current practices and topical issues with guideposts. As a result of these activities, I believe that I gained a very thorough knowledge of current practices and issues at that time in the roadside post industry throughout Australia. I believe that, at that time, my knowledge of roadside post practices and issues would have well exceeded that of most involved in the industry at the time. Between the time that I supervised and conducted the questionnaire in 1997, and 23 June 2003, I am not aware that there were any significant developments in roadside posts in Australia. Accordingly, I expect that the knowledge I would have gained had I supervised and conducted the questionnaire in 2003 would have been similar to the knowledge I gained in 2003. I believe that the practices and issues in the industry in Australia were much the same in 2003 as they were in 1997. In light of the detailed knowledge of roadside post practices and issues that I gained in 1997, and given the industry's continued search for the ideal roadside post that possessed each of the desired properties set out above in paragraph 12, I asked myself why I was not able to come up with the idea of a roadside post formed of sheet spring steel myself. It is only with the benefit of hindsight that I am now able to see how good a solution the roadside post described in the Delnorth Application is. It is the apparent simplicity of the solution that is perhaps the most impressive aspect of the invention.

I understand that a person who intentionally makes a false statement in a statutory declaration is guilty of an offence under section 11 of the *Statutory Declarations Act 1959*, and I believe that the statements in this declaration are true in every particular.

Declared at The Junction on 22nd of October 2007

Before me:

Signature of Declarant

P Matthews

Justice of the Peace

AUSTRALIA

Patents Act 1990

IN THE MATTER OF Australian Patent Application No. 2004249786

-and-

IN THE MATTER OF Opposition thereto by Dura-Post (Aust.) Pty Ltd

THIS IS Exhibit LBD-A referred to in the Statutory Declaration of Laurence Bede Dowling made before me:

DATED this Day of October, 2007

P Matthews
.....
Justice of the Peace

AH14(983313_1):PRW

(12) **STANDARD PATENT** (11) Application No. **AU 2004249786 B2**
(19) AUSTRALIAN PATENT OFFICE

(54) Title
Roadside post

(51) International Patent Classification(s)
E01F 9/017 (2006.01) ***E01F 9/087*** (2006.01)

(21) Application No: **2004249786** (22) Date of Filing: **2004.06.10**

(87) WIPO No: **WO04/113619**

(30) Priority Data

(31) Number	(32) Date	(33) Country
2003903188	**2003.06.23**	**AU**

(43) Publication Date: **2004.12.29**
(44) Accepted Journal Date: **2006.01.05**

(71) Applicant(s)
Delnorth Pty. Ltd.

(72) Inventor(s)
Mudryk, Boydan Joseph;Campbell, Garry David

(74) Agent / Attorney
Spruson & Ferguson, Level 35 St Martins Tower 31 Market Street, Sydney, NSW, 2000

(56) Related Art
US 4486117, DE19654203, AU65536/96

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
29 December 2004 (29.12.2004)

PCT

(10) International Publication Number
WO 2004/113619 A1

(51) International Patent Classification[7]: E01F 009/017, 009/087

(21) International Application Number: PCT/AU2004/000772

(22) International Filing Date: 10 June 2004 (10.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003903188 23 June 2003 (23.06.2003) AU

(71) Applicant *(for all designated States except US)*: DELNORTH PTY. LTD. [AU/AU]; Level 2, 57 Grosvenor Street, Neutral Bay, NSW 2089 (AU).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: MUDRYK, Boydan, Joseph [AU/AU]; 29 Gwandalan Close, Seaham, NSW 2324 (AU). CAMPBELL, Garry, David [AU/AU]; 25 Suffolk Drive, Valentine, NSW 2280 (AU).

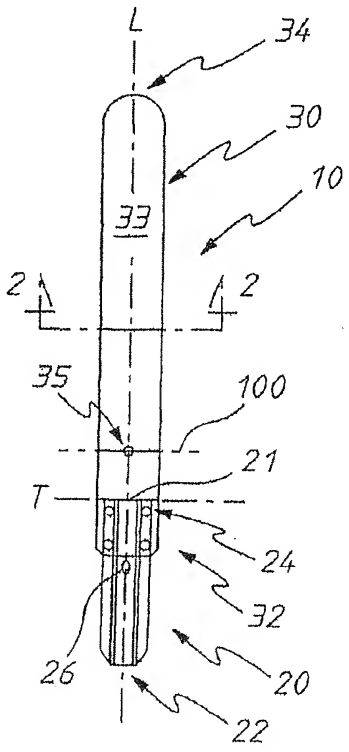
(74) Agent: SPRUSON & FERGUSON; GPO Box 3898, Sydney, NSW 2001 (AU).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: ROADSIDE POST



(57) Abstract: A roadside post (10, 110) comprises an elongate body (30, 130) formed of sheet spring steel. The body (30, 130) has a longitudinal axis (L), a front face (31, 13 1) and a rear face (33, 133). The body (30, 130) is elastically bendable through 90' from an unbent state about a transverse axis (T) transverse to the longitudinal axis (L). The front and rear faces (31, 131, 33, 133) transversely extend generally parallel to the transverse axis (T). The roadside post (10) may further comprise a rigid base (20).

WO 2004/113619 A1

European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:
— *with international search report*

ROADSIDE POST

Field of the Invention

The invention relates to roadside posts for supporting signage or delineating paths, roadways or boundaries.

Background of the Invention

Common examples of roadside posts include sign posts and guide posts, which are usually located on the edge or shoulder of roadways to delineate lanes and direct traffic. Guide posts are particularly effective when visibility is impaired, such as at night on unlit highways. Retro-flective sheeting is commonly used on delineator guide posts in various grades to reflect light and indicate to motor vehicle drivers the varying contours and directions of the approaching section of road.

Roadside posts are often impacted and damaged by wayward vehicles and must be replaced or repaired. Timber posts will commonly fracture when impacted and must be replaced. Existing plastic or plastic/rubber composite posts are flexible and resilient enabling them to recover after impact. However, plastic or rubber posts tend to deteriorate due to UV exposure and repeated impacts over time. Steel posts have also been employed and are generally not resilient, plastically deforming upon impact and must be manually restraightened. Some known devices also employ a hinging mechanism between two or more rigid members. The hinging mechanism is typically a flexibly resilient rubber or plastic material. The rubber or plastic components of these posts also deteriorate due to UV exposure and repeated impacts. Other hinging mechanisms are either not resilient or complicated and expensive to manufacture.

Often the nature of the vehicle impact is a direct wheel-over in which the vehicle wheel rolls directly over the post pressing it flat against the surface of the ground. Known posts are installed in the ground to bend only above the surface of the ground and are therefore, not adapted to bend flat against the ground surface without enduring a tight right angle bend at the surface. During a direct wheel-over, flexible posts are forced to bend substantially at a tight right angle at the ground surface. Subsequently, during a direct wheel-over, crease points can occur in the post at the surface of the ground as the post is forced into a tight right angle bend. Tight right angle bends accelerate fatigue of the post and also increase plastic deformation in metal posts.

Object of the Invention

It is the object of the present invention to substantially overcome or at least ameliorate one or more of the disadvantages of the prior art.

Summary of the Invention

Accordingly, in a first aspect, the present invention provides a roadside post comprising an elongate body formed of sheet spring steel and having a longitudinal axis, a front face and a rear face, wherein:

said body is elastically bendable through 90 degrees from an unbent state about a transverse axis transverse to said longitudinal axis, said front and rear faces transversely extending generally parallel to said transverse axis.

Preferably, said body is elastically bendable through 90° from said unbent state about said transverse axis to either side of said longitudinal axis.

Preferably, said body is formed from sheet spring steel having a Rockwell hardness of C40 to C47. Further preferably, said spring steel is high carbon steel C1075.

Preferably, said body has a width of approximately 75 mm to 120 mm. The sheet spring steel may have a thickness of approximately 0.9 mm to 1.5 mm.

Desirably, said body has a substantially arcuate transverse cross-section. Preferably said arcuate transverse cross-section has a radius of approximately 100 mm to 250mm. Alternatively, said transverse cross section is a channel cross-section comprising a central web and two lateral flanges. Preferably, the angle formed between said web and each said flange is approximately 150° to 175°: Preferably, the web has a width of approximately 30 mm to 60 mm.

In a preferred embodiment, the post body is formed with longitudinal extending ribs. The apex of each of the ribs is preferably separated by approximately 5 mm to 25 mm and the ribs preferably protrude approximately 0.2 mm to 0.8 mm from the trough between each rib.

In one form, said post further comprises a rigid base adapted to be driven into the ground, a first end of said body being fixed to said base.

Preferably, the base has a tapered end longitudinally distal of the body, said base tapered end being adapted to be driven into the ground. Further preferably, said base is formed of steel.

In another form, a first end of said body is adapted to be driven into the ground.

Typically, said body first end is tapered.

Preferably, the body includes a mark indicative of the location of the surface of the ground when said post is driven into the ground to a design depth.

Further preferably, said mark is a hole. Desirably, said mark is located approximately 50 mm to 150mm longitudinally distal of said base.

In a second aspect, the present invention provides a roadside post installation comprising said roadside post of the first aspect in which said post is driven into the ground.

Typically, a recess is formed in the ground immediately adjacent said body to allow uninhibited bending of said body, said recess extending across either of said front face and said rear face.

Preferably, two said recesses are formed in the ground, a first said recess extending across said front face and a second said recess extending across said rear face.

Preferably, the entire said base is located beneath the surface of the ground.

Desirably, the top of said base is located at a depth of approximately 50 mm to 150 mm beneath the surface of the ground.

Further desirably, said recess extends approximately 50 mm to 150 mm from said transverse axis at the surface of the ground.

The recess may have a depth of approximately 50 mm to 150 mm.

In a third aspect, the present invention provides a method of installing the roadside post of the first aspect in the ground, said method comprising driving said post into the ground.

Preferably the method further comprises forming a recess in the ground immediately adjacent said body to allow uninhibited bending of said body, said recess extending across either of said front face and said rear face.

Brief Description of the Drawings

Preferred embodiments of the invention will now be described with reference to the accompanying drawings wherein:

Fig.1 is a rear elevation view of a post in an unbent state;

Fig.2a is a cross sectional view taken along the line 2-2 of a first embodiment of the post of Fig.1;

Fig.2b is a cross sectional view taken along the line 2-2 of a second embodiment of the post of Fig.1; and

Fig.3 is a side elevation view of a post installation with the post of Fig.1 in a bent state.

Fig. 4 is a side elevation view of an alternative post installation with the post of Fig. 1 in a bent state.

Fig. 5 is a front elevation view of an alternate post in an unbent state;

Fig. 6 is a plan view of the post of Fig. 5;

Fig. 7 is a side elevation view of a post installation with the post of Fig. 5 in a bent state;

Fig. 8 is an enlarged partial front elevation view of the post of Fig. 5;

Fig. 9 is an enlarged plan view of the profile of the post of Fig. 5;

Fig. 10 is an exploded detail view of the profile of Fig. 9.

Description of the Preferred Embodiments

Figs.1 to 3 depict a roadside post 10. The post 10 comprises a base 20 and an elongate body 30 having a longitudinal axis L. The body 30 is 1188mm in length and the base 20 is 250mm in length. A first end 32 of the body 30 is fixed to the base 20. The second end 34 is rounded for safety. The base 20 has a tapered end 22 longitudinally distal of the body 30. The body 30 is formed from sheet spring steel, preferably having a Rockwell hardness of C40 to C47. The spring steel may be high carbon steel C1075. The body 30 has a front face 31 and a rear face 33. The body 30 is elastically bendable through 90° about a transverse axis T transverse to the longitudinal axis L of the body 30. The body front and rear faces 31, 33 extend generally parallel to the transverse axis T.

Fig.1 is a rear elevation view of the post 10 in an unbent state, in which the body 30 extends longitudinally. The post 10 is installed by driving the base 20 longitudinally into the ground 100 so that the body 30 projects vertically from the ground 100, typically with the entire base 20 located beneath the surface of the ground 100. The top 21 of the base 20 is preferably located at a depth of approximately 100mm beneath the surface of the ground 100 when installed to the design depth. When installed to the design depth the body 30 projects 1000mm above the surface of the ground. A depth marker hole 35 is provided on the body 30, 100mm from the top of the base, and is indicative of the ground

surface level when installed to the design depth. The post 10 is accordingly driven into the ground 100 until the hole 35 is aligned with the surface of the ground 100.

The base 20 is generally channel shaped in transverse cross section and is fixed to the first end 32 by means of four impact resistant pins and collars 24. The base 20 is also provided with a removal slot 26 to facilitate removal of the post 10 from the ground by inserting a hook through the slot 26 and pulling upwards. The removals slot may alternatively be located on the body 30.

Fig.2a shows a preferred embodiment of the body 30 in which the transverse cross section of the body 30 taken at 2-2 is arcuate having a radius of approximately 250mm and a transverse width of approximately 100mm. The sheet spring steel from which the body 30 is formed has a thickness of 1.2mm. The arcuate cross section increases the stiffness of the body 30 in the unbent state, so as to inhibit bending of the body 30 under wind loads, including those generated by vehicles driving by, and biases the body 30 to the unbent state.

Fig.2b shows an alternative embodiment of the body 30 having a channel transverse cross section taken at 2-2 comprising a central web 40 and two lateral flanges 42, each defining an angle of approximately 160° with the web 40. The transverse width and sheet thickness are the same as the embodiment of Fig. 2a and the width of the web 40 is 50mm. This channel cross section exhibits similar stiffness and biasing qualities to the arcuate cross section of Fig.2a.

Fig.3 is a side view of the post of Fig.1 in a rearwardly bent state, for example, when impacted from front on by a vehicle in a direct wheel-over. When installed in the ground 100, a recess 50 is formed in the ground above the base 20 and immediately behind the body 30 to allow uninhibited bending of the body 30. The recess 50 may be formed by removing a portion of the ground and extends across the body rear face 33. The recess 50 is typically at least 100mm deep and extends at least 100mm rearwardly of the transverse axis L of the body 30 at the ground surface. This allows a bend radius of 100mm for the body 30 compared with a bend radius of near zero for tight right angled bends that occur in prior art post installations. This assists in enabling elastic bending of the body 30 and reduces fatigue, while allowing the body 30 to lie substantially prostrate on the surface of the ground 100 as the vehicle wheel rolls over the body 30. This minimises damage to the wheel, vehicle and post 10. The recess 50 may be filled with

sand or another loose or compressible material without significantly effecting the bend radius of the lower portion 36.

After impact, the resilience of the spring steel and the bias of the cross section urge the body 30 to return to the undeformed state shown in Fig.1.

The body 30 is able to bend through 90° from the vertical when impacted either from the front or the rear, bending about the transverse axis L to either side of the longitudinal axis T. To allow uninhibited bending of the body 30 when impacted from the rear, a further recess 51 may be formed in the ground above the base 20 immediately forward of the body 30, and extending across the body front face 31 as depicted in Fig. 4.

The post 10 is powder coated to prevent corrosion.

Figures 5 to 10 depict an alternate road side post 110 comprising a body 130 without a separate base. The first end 132 of the body 130 is adapted to be driven into the ground 100. To facilitate driving of the body first end 132 into the ground, the body first end 132 is tapered. A ground retention barb 137 is formed in the body 130 toward the body first end 132 to assist in retaining the body first end 132 within the ground 100. The ground retention barb 137 is integrally formed with the body 130, being punched from the spring sheet steel. The ground retention barb 137 extends towards the body second end 134. A depth marker hole 135 and removal slot 136 are formed in the post body in the same manner as described above in relation to the post 10 of Figures 1 to 3.

Recesses 50, 51 are again formed in the ground adjacent the body front and rear faces 131, 133 to allow uninhibited bending of the body 130 at ground level, providing for a generous bend radius when the body 130 is bent upon impact.

Referring specifically to Figures 8 through 10, the profile of the post body 130 may be formed with longitudinally extending ribs 138, pressed into the sheet spring steel, to form a very slight concertina type profile on the body front and rear faces 131, 133. The apex 138a of each of the ribs 138 may be separated by approximately 10 mm, and protrude by approximately 0.3 mm from the trough 138b between each rib 138. This profile acts to further stiffen the post body 130, and assist in elastic recoil of the post body 130 after being elastically bent.

Although preferred forms of the present invention have been described, it will be apparent to persons skilled in the art that modifications can be made to the preferred embodiment described above or that the invention can be embodied in other forms.

Claims:

1. A roadside post comprising an elongate body formed of sheet spring steel and having a longitudinal axis, a front face and a rear face, wherein:

said body is elastically bendable through 90 degrees from an unbent state about a transverse axis transverse to said longitudinal axis, said front and rear faces transversely extending generally parallel to said transverse axis.

2. The roadside post of claim 1 wherein, said body is elastically bendable through 90° from said unbent state about said transverse axis to either side of said longitudinal axis.

3. The roadside post of claim 1 wherein said body is formed from sheet spring steel having a Rockwell hardness of C40 to C47.

4. The roadside post of claim 3 wherein said spring steel is high carbon steel C1075.

5. The roadside post of claim 1 wherein said body has a width of approximately 75 mm to 120 mm.

6. The roadside post of claim 1 wherein said sheet spring steel has a thickness of approximately 0.9 mm to 1.5 mm.

7. The roadside post of claim 1 wherein said body has a substantially arcuate transverse cross-section.

8. The roadside post of claim 7 wherein said arcuate transverse cross-section has a radius of approximately 100 mm to 250 mm.

9. The roadside post of claim 1 wherein said body has a channel shaped transverse cross-section comprising a central web and two lateral flanges.

10. The roadside post of claim 9 wherein the angle formed between said web and each said flange is approximately 150° to 175°.

11. The roadside post of claim 1 wherein said post further comprises a rigid base adapted to be driven into the ground, a first end of said body being fixed to said base.

12. The roadside post of claim 11 wherein said base has a tapered end longitudinally distal of the body, said base tapered end being adapted to be driven into the ground.

13. The roadside post of claim 1 wherein a first end of said body is adapted to be driven into the ground.

14. The roadside post of claim 13 wherein said body first end is tapered.

15. The roadside post of claim 1 wherein said body includes a mark indicative of the location of the surface of the ground when said post is driven into the ground to a design depth.

16. The roadside post of claim 15 wherein said mark is a hole.

17. A roadside post installation comprising the roadside post of any one of claims 1 to 16 in which said post is driven into the ground.

18. The roadside post installation of claim 17 wherein a recess is formed in the ground immediately adjacent said body to allow uninhibited bending of said body, said recess extending across either of said front face and said rear face.

19. The roadside post of claim 18 wherein said recess extends approximately 50 mm to 150 mm from said transverse axis at the surface of the ground.

20. The roadside post of claim 18 wherein said recess has a depth of approximately 50 mm to 150 mm.

21. The roadside post installation of claim 18 wherein two said recesses are formed in the ground, a first said recess extending across said front face and a second said recess extending across said rear face.

22. The roadside post installation of claim 18, and comprising the roadside post of claim 11, wherein the entire said base is located beneath the surface of the ground.

23. The roadside post installation of claim 22 wherein the top of said base is located at a depth of approximately 50 mm to 150 mm beneath the surface of the ground.

24. A method of installing the roadside post of any one of claims 1 to 16, said method comprising driving said post into the ground.

25. The method of claim 24 wherein the method further comprises forming a recess in the ground immediately adjacent said body to allow uninhibited bending of said body, said recess extending across either of said front face and said rear face.

26. The method of claim 25 wherein said recess extends approximately 50 mm to 150 mm from said transverse axis at the surface of the ground.

27. The method of claim 25 wherein said recess has a depth of approximately 50 mm to 150 mm.

28. The method of claim 25 wherein two said recesses are formed in the ground, a first said recess extending across said front face and a second said recess extending across said rear face.

29. A roadside post substantially as hereinbefore described with reference to Figures 1 and 2a or Figures 1 and 2b.

30. A roadside post substantially as hereinbefore described with reference to Figures 5, 6, 8, 9 and 10.

31. A roadside post installation substantially as hereinbefore described with reference to Figure 3.

32. A roadside post installation substantially as hereinbefore described with reference to either of Figure 4 and Figure 7.

DATED this Twenty-fifth Day of November, 2005

Delnorth Pty Ltd

Patent Attorneys for the Applicant

SPRUSON & FERGUSON

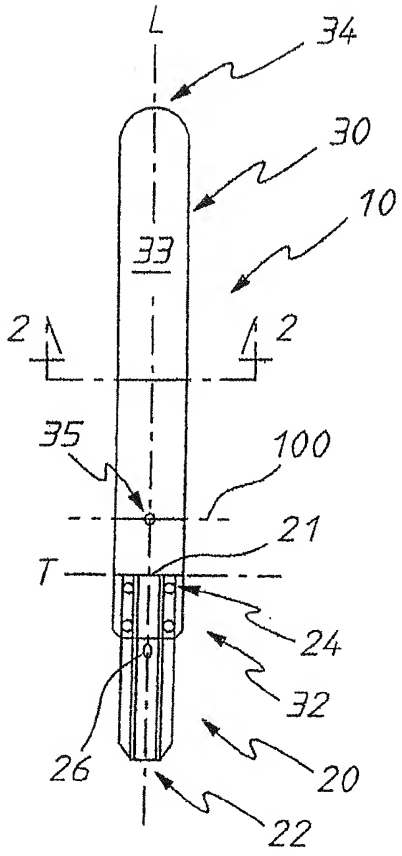


FIG. 1

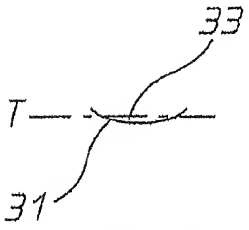


FIG. 2a

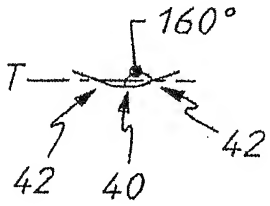


FIG. 2b

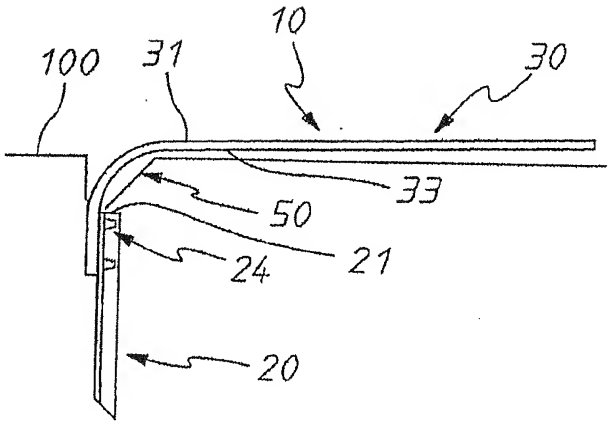


FIG. 3

FIG.6

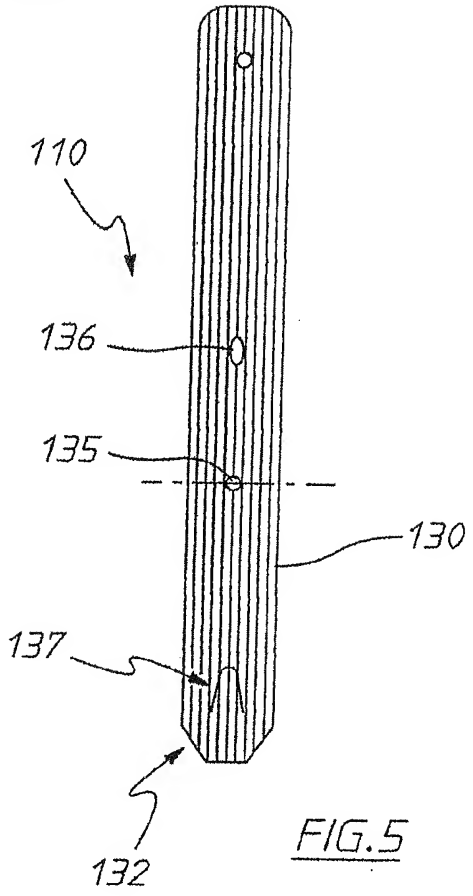


FIG.5

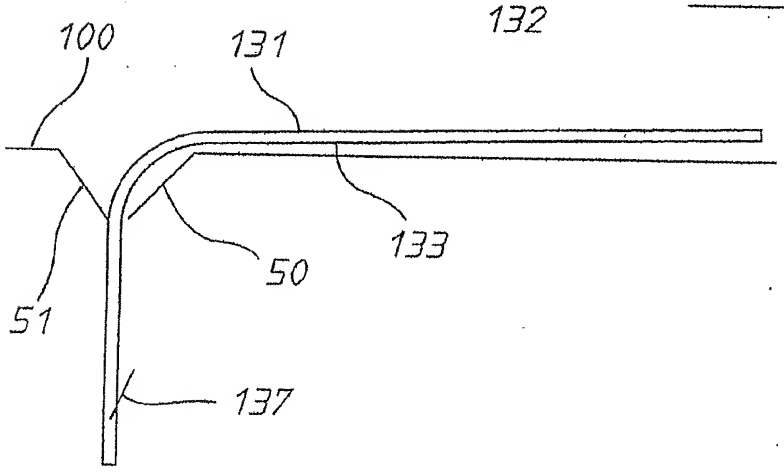


FIG.7

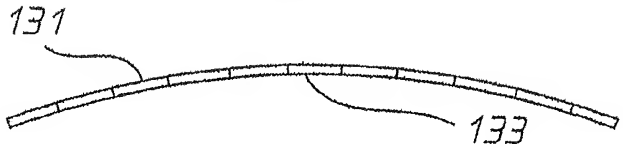


FIG. 9

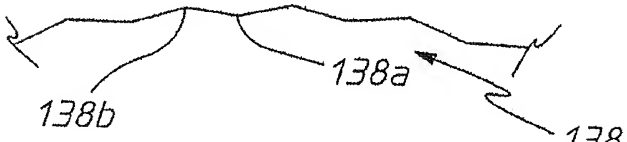


FIG. 10

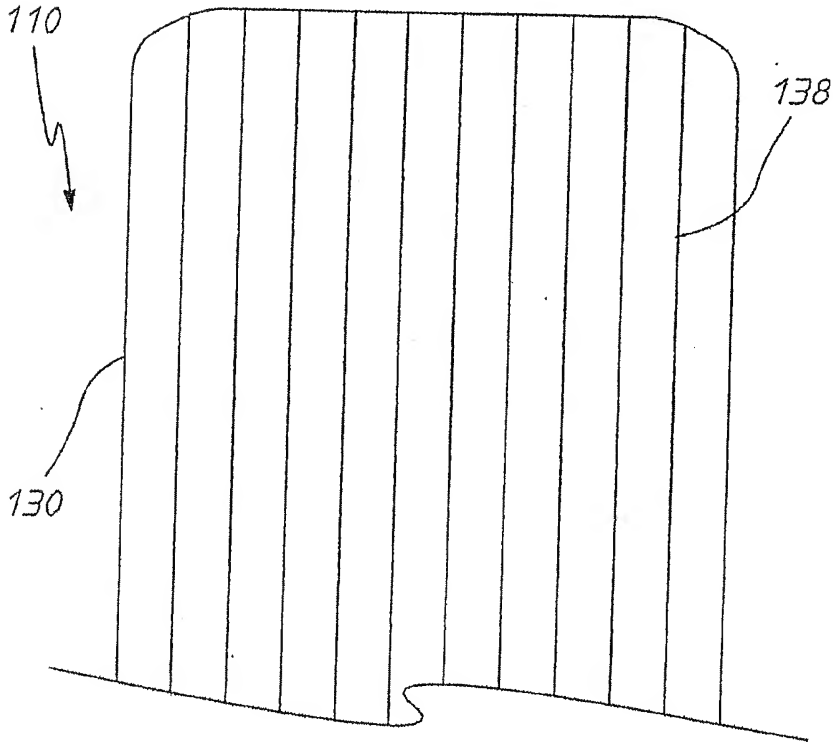


FIG. 8